



Air Quality Permitting Statement of Basis

April 16, 2004

Tier I Operating Permit No. T1-030415
The Amalgamated Sugar Co., LLC, Twin Falls
Facility ID No. 083-00001

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FINAL TIER I OPERATING PERMIT AMENDMENT

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Acronyms, Units, and Chemical Nomenclature

CFR	Code of Federal Regulations
COMS	continuous opacity monitoring systems
DEQ	Idaho Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
NSPS	New Source Performance Standards
O&M	operations and maintenance
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter of ten microns or less
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
TASCO	The Amalgamated Sugar Co., LLC
TDS	total dissolved solids
TSS	total suspended solids

PUBLIC COMMENT / AFFECTED STATES / EPA REVIEW SUMMARY

In accordance with IDAPA 58.01.01.364 of the *Rules for the Control of Air Pollution in Idaho (Rules)*, a 30-day public comment period for The Amalgamated Sugar Co., LLC (TASCO) draft Tier I operating permit was held from November 10, 2003 through December 12, 2003. No comments were received from an entity during the public comment period. A proposed permit was then crafted and sent to EPA for their review in accordance with IDAPA 58.01.01.366. EPA's review period commenced December 23, 2003. On February 2, 2004, EPA notified DEQ in writing that they are not commenting on the proposed permit and that the permit is eligible for issuance.

IDAPA 58.01.01.008.01 defines *affected states* as all states "...whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within 50 miles of the Tier I source.

A review of the site location information included in the permit application indicates that the facility is located within 50 miles of a state border. Therefore, the states of Nevada and Utah were provided an opportunity to comment on the draft Tier I operating permit.

1. PURPOSE

The purpose of this technical analysis is to satisfy the requirements of IDAPA 58.01.01.300-386 of the *Rules* for Tier I operating permits.

2. SUMMARY OF EVENTS

On January 21, 2003, TASCO filed a petition for contested case proceedings in regard to Tier I Operating Permit No. 083-00001, dated December 17, 2002 (hereafter referred to as the Existing Permit). On March 28, 2003, representatives of TASCO and the Idaho Department of Environmental Quality (DEQ) met to discuss possible resolutions to the issues raised in the contested case petition. During this meeting, it was determined that a large number of the issues in TASCO's appeal of the Existing Permit stemmed from permit conditions that were based on incomplete or inaccurate information, typographical errors, and/or clarification of some terms within the permit. It should also be noted that TASCO and DEQ mutually agreed to drop some of the appeal issues as inconsequential in nature (i.e., the permit has not been changed to address some items in the January 21, 2003, petition). TASCO presented new information regarding several units at the facility 1) during the March 28, 2003, meeting, 2) in a letter dated May 12, 2003, 3) in a facsimile received on June 3, 2003, and 4) in a letter dated June 26, 2003.

Based upon the new information presented or submitted by TASCO, DEQ determined that the Existing Permit could be reopened for cause, in accordance with IDAPA 58.01.01.386.01.c, to revise affected terms of the permit. A draft revision of the Tier I permit was made available for public comment from November 10, 2003 through December 12, 2003. DEQ received no comments from any parties; therefore, the proposed Tier I permit and this statement of basis were prepared for the U.S. Environmental Protection Agency's (EPA's) 45-day review period. EPA's review period commenced December 23, 2003. On February 2, 2004, EPA notified DEQ in writing that they are not commenting on the proposed permit and that the permit is eligible for issuance (see Appendix).

3. REGULATORY ANALYSIS

This section of the technical analysis specifically outlines changes made to the Existing Permit. For regulatory purposes, the permit has been reopened in accordance with IDAPA 58.01.01.386.02, to incorporate the revisions discussed in this memorandum. The Existing Permit will be reissued as Tier I Operating Permit No. T1-030415.

This analysis does not address the technical or regulatory aspects of existing, unchanged permit conditions in the Existing Permit. It should also be noted that, as a result of this permit reopening, minor numbering and format changes have been made to the Existing Permit; however, these changes are inconsequential and are not specifically addressed in this analysis.

All references to specific permit condition numbers or sections in the catchlines of Section 3 of this memorandum refer to conditions or sections in the Existing Permit.

3.1 New Source Performance Standard Requirements – Permit Conditions 2.1-2.39

The Twin Falls facility currently operates a Foster Wheeler boiler that is subject to the New Source Performance Standards (NSPS) of 40 CFR 60, Subpart D. The NSPS provisions for this unit appear in Section 2 of the Existing Permit, and include several "one-time requirements" (e.g., the initial performance testing requirements). The contested case petition noted that several of these provisions have already been fulfilled by TASCO, and consequently, should not be included in the permit. The May

12, 2003, facsimile is a detailed list of one-time NSPS provisions that have been fulfilled. It should be noted that any "ongoing" NSPS requirement have not been removed from the permit, and the applicable requirements for the boiler have not been relaxed, nor has any emissions limit been increased.

Based on the information submitted, DEQ has reopened the Existing Permit to remove Permit Conditions 2.7-2.9, 2.17-2.23, 2.26-2.31, and 2.34-35. Permit Conditions 2.7-2.9 were taken from 40 CFR 60.46, and specify test methodology for the initial performance test required by 40 CFR 60.8. TASCO fulfilled the initial performance test requirements, per a report dated January 3, 1986. Permit Conditions 2.17-2.23 were taken from 40 CFR 60.8 and 60.11, and specify test methodology and EPA notification requirements for the initial performance test. These requirements were fulfilled by TASCO in reports dated November 15, and 17, 1976. Permit Conditions 2.26-2.31 were taken from 40 CFR 60.11, and specifically address initial compliance demonstrations for opacity standards. These permit requirements were fulfilled by TASCO in the report dated November 15, 1976. Permit Conditions 2.34 and 2.35 were taken from 40 CFR 60.13, and specify installation/operation requirements for continuous monitoring systems and performance evaluation requirements for the continuous opacity monitoring systems (COMS). Per the report dated November 15, 1976, TASCO has fulfilled these requirements.

Permit Condition 2.11 of the Existing Permit has been changed. Permit Condition 2.11 was taken from 40 CFR 60.7, and requires notification of construction, startup, continuous monitoring system startup, and opacity demonstration. TASCO has fulfilled these requirements for the initial installation and startup of the boiler; however, this does not release TASCO from these requirements in the event of reconstruction (refer to 40 CFR 60.7(a)(1)) or the requirement to notify EPA of any physical or operational change that may increase the emission rate of an affected pollutant (refer to 40 CFR 60.7(a)(4)). Therefore, this requirement has been revised, and now appears as Permit Condition 2.8 in the permit.

Permit Condition 2.16 of the Existing Permit has been changed. Permit Condition 2.16 was taken from 40 CFR 60.8(a), and refers to the timeframe for the performance test. TASCO has met this requirement for the initial installation and startup of the boiler; however, 40 CFR 60.8(a) states that EPA can require a performance test at any time in accordance with Section 114 of the Clean Air Act. Therefore, this requirement has been revised, and now appears as Permit Condition 2.13 in the permit.

3.2 Operations and Maintenance Manual Requirements – Permit Conditions 3.10, 5.12, 6.3, 7.3, 8.3, 9.3, 10.6, and 11.4

The Existing Permit required TASCO to develop and maintain operations and maintenance (O&M) Manuals for control equipment for the B&W boiler, pulp dryer, pellet coolers, lime kilns, process slaker, drying granulator, cooling granulator, pulp dryer material handling, and lime kiln material handling. TASCO's petition cites several issues with provisions contained in these permit conditions, including the requirement for DEQ approval of the manuals, incorporation of the manuals into the permit, requirements to update the manuals after source tests, and inclusion of specific operating ranges for some equipment. Upon review of these permit conditions, DEQ concurs with many of TASCO's assertions; however, DEQ maintains that operating ranges for control equipment must be included as a condition in the permit if removed from the O&M manual requirements. On May 15, 2003, TASCO supplied proposed operating ranges for most control units and proposed inclusion of these ranges in the permit as permit conditions.

Based on the new information, DEQ has reopened the Existing Permit to revise permit conditions concerning O&M manual requirements. Specifically, the individual permit conditions for each control unit have been consolidated into a general facility-wide permit condition affecting each of the units (Permit Condition 1.21 in the revised permit). In order to assure that emissions rates will not increase, specific operating ranges for control units, where applicable, have been placed in the permit as "stand alone" provisions (refer to Permit Conditions 5.2, 7.2, 9.2, and 10.2 of the revised permit). Consequently,

the requirement to include the O&M manuals as part of the permit and the requirement for DEQ-approval of the manuals is no longer necessary in the permit. Specific changes to permit conditions for each emissions unit are described in the following sections.

3.2.1 B&W Boiler (Unit No. S-B2)

Permit Condition 3.10 has been removed from the Existing Permit. The O&M manual requirements for the boiler baghouse now appear in Permit Condition 1.21. The operating ranges for the baghouse remain in Permit Condition 3.4, although this permit condition has revised to remove language regarding deviations and/or excess emissions reporting.

3.2.2 Pulp Dryer (Unit No. S-D1)

Permit Condition 5.12 has been removed from the Existing Permit. The O&M manual requirements for the dryer scrubber now appear in Permit Condition 1.21. Permit Condition 5.2 of the Existing Permit required TASCOS develop operating ranges for the scrubber in conjunction with the O&M manual requirements of Permit Condition 5.12. However, TASCOS has supplied proposed operating ranges, based upon historical data. These operating ranges have been incorporated into revised Permit Condition 5.2. Operating parameters have been expanded to include pressure drop across the spray nozzles and total dissolved solid (TDS) and total suspended solid (TSS) content of the scrubber water.

The monitoring requirements of Permit Condition 5.8 have been expanded to include water pressure on the spray nozzles.

3.2.3 Pellet Coolers (Unit Nos. S-D2 and S-D3)

Permit Condition 6.3 has been removed from the Existing Permit. The O&M manual requirements for the pellet mill cyclone now appear in Permit Condition 1.21. Permit Condition 6.3 of the Existing Permit required TASCOS develop operating parameters and ranges for the cyclone in conjunction with the O&M manual requirements. Since cyclones are static control devices and do not typically have operational parameters that can be manipulated to increase performance or removal efficiency, no operating ranges have been incorporated into the revised permit.

Permit Condition 6.3 now requires annual inspections of the cyclone at a minimum. Routine inspections and maintenance of the unit should assure proper operation.

3.2.4 Lime Kilns (Unit Nos. S-K1 and S-K2)

Permit Condition 7.3 has been removed from the Existing Permit. The O&M manual requirements for the lime kilns' exhaust vent scrubber (referred to as the "bypass scrubber" in the Existing Permit) now appear in Permit Condition 1.21. Permit Condition 7.3 of the Existing Permit required TASCOS develop operating ranges for the scrubber in conjunction with the O&M manual requirements. However, TASCOS has supplied proposed operating ranges, based upon historical data. This operating range has been incorporated into the permit as revised Permit Condition 7.2.

Permit Condition 7.5 has been added to the revised permit, and requires annual inspection of the scrubber, at a minimum, to ensure proper operation.

It should be noted that the gas washers and carbonation tanks associated with the carbonation system are now considered process equipment (refer to Section 3.3 of this memorandum), and are not subject to O&M manual requirements.

3.2.5 Process Slaker (Unit No. S-K4)

Permit Condition 8.3 has been removed from the Existing Permit. The O&M manual requirements for the process slaker cyclone now appear in Permit Condition 1.21. Permit Condition 8.3 of the Existing Permit required TASCOS develop operating parameters and ranges for the cyclone in conjunction with the O&M manual requirements. Since cyclones are static control devices and do not typically have operational parameters that can be manipulated to increase performance or removal efficiency, no operating ranges have been incorporated into the revised permit.

Permit Condition 8.3 now requires annual inspections of the cyclone at a minimum. Routine inspections and maintenance of the unit should assure proper operation.

3.2.6 Drying Granulator (Unit No. S-W1)

Permit Condition 9.3 has been removed from the Existing Permit. The O&M manual requirements for the drying granulator scrubber now appear in Permit Condition 1.21. Permit Condition 9.3 of the Existing Permit required TASCOS develop operating ranges for the scrubber in conjunction with the O&M manual requirements. However, TASCOS has supplied proposed operating ranges, based upon historical data. These operating ranges have been incorporated into the permit as revised Permit Condition 9.2.

Monitoring requirements (i.e., water flow rate) for the scrubber have been included as Permit Condition 9.4. Additionally, Permit Condition 9.5 has been added to the revised permit, and requires annual inspection of the scrubber, at a minimum, to ensure proper operation.

3.2.7 Cooling Granulator (Unit No. S-W2)

Permit Condition 10.6 has been removed from the Existing Permit. The O&M manual requirements for the cooling granulator scrubber now appear in Permit Condition 1.21. Permit Condition 10.6 of the Existing Permit required TASCOS develop operating parameters and ranges for the scrubber in conjunction with the O&M manual requirements. However, TASCOS has supplied proposed operating ranges, based upon historical data. These operating ranges have been incorporated into the permit as revised Permit Condition 10.2.

Monitoring requirements (i.e., water pressure) for the scrubber have been included as revised Permit Condition 10.6. Additionally, Permit Condition 10.7 has been added to the revised permit, and requires annual inspection of the scrubber, at a minimum, to ensure proper operation.

3.2.8 Material Handling Baghouses (Unit Nos. S-D4 and S-K5A)

Permit Condition 11.4 has been removed from the Existing Permit. The O&M manual requirements for the material handling baghouses now appear in Permit Condition 1.21. Permit Condition 11.5 has been added to the revised permit, and requires annual inspection of the baghouses, at a minimum, to ensure proper operation.

Historically, TASCOS has not monitored the pressure drop across the material handling baghouses, and was therefore unable to propose any operating range(s) for these units. In order to resolve this issue, the facility has proposed to install monitoring devices within one year and to provide proposed operating ranges within six months after the devices have been installed. Consequently, Permit Condition 11.3 in the Existing Permit has been revised to require that monitoring devices be installed and operated, and Permit Condition 11.4 requires that proposed operating ranges be submitted to DEQ within six months following installation of the devices. Permit Condition 11.4 also requires that TASCOS's proposal contain all necessary documentation, and be submitted as an administrative amendment request to incorporate the

proposed ranges into the Tier I permit as an operating limit. Upon receipt of the request, DEQ will evaluate the proposal, with the intent of amending the permit to incorporate these operating ranges as permit limits to ensure compliance with applicable permit requirements.

It should be noted that, until such time as the permit amendment is complete, the permittee shall demonstrate compliance with Permit Conditions 1.11 through Permit Conditions 11.2 and 11.5. Compliance with Permit Condition 1.7 shall be demonstrated by Permit Condition 1.8, subject to the provisions of Permit Condition 11.6 (refer to the discussion in Section 3.5 of this memorandum).

3.3 Lime Kiln / Carbonation System Requirements – Section 7

The two lime kilns (Unit Nos. S-K1 and S-K2) are regulated in Section 7 of the Existing Permit. In the Existing Permit, the gas washers (Unit Nos. A-K1 and A-K2) and carbonation units were treated as control equipment. In a June 26, 2003, submittal, TASCO provided documentation intended to demonstrate that these units are, by design, process equipment. Upon review of this documentation, DEQ acknowledges TASCO's position in this matter, as the units appear to have been installed and operated as an inherent part of the beet-manufacturing process. However, based upon current information available, DEQ asserts that the exhaust vent scrubber (Unit No. P-K1/2D) is not a process unit, but rather, is operated as control equipment intended to reduce emissions when lime kiln exhaust is not routed directly to the carbonation system.

Consequently, all references to the gas washers and carbonation units as control equipment have been deleted from the permit.

3.4 Flume Slaker Requirements – Section 8

The flume slaker (Unit No. P-K3) is regulated in Section 8 of the Existing Permit. The submittal received on May 15, 2003, notes that the 1999 Tier I application update contained a typographical error in regard to the flume slaker (Unit No. P-K3), and includes revised potential emissions calculations for the unit. These calculations indicate that this unit has a potential PM emissions rate of 1.7 tons per year, and a potential PM₁₀ emissions rate of 1.5 tons per year. These are the only regulated pollutants emitted by the unit, and the unit has not been permitted in any prior air quality permits. This qualifies the unit as an insignificant activity in accordance with IDAPA 58.01.01.317.01.b.i.30.

Based on the information in the submittal, DEQ has reopened the Existing Permit to remove the flume slaker from Section 8 of the permit, and has been reclassified as an insignificant activity for purposes of the Tier I permit.

3.5 Main Mill Vents and Sulfur Stove Requirements – Section 11

In the May 12, 2003, submittal, TASCO asserted that emissions from the Main Mill and Sulfur Stove are unlikely to emit visible emissions, and requested that these sources be exempted from visible emissions inspection requirements. DEQ has reviewed this information and largely concurs with TASCO's assessment. In order to address this concern, the permit has been changed to require visible emissions inspections for these sources in a graduated fashion, whereby TASCO must conduct periodic inspections for one year. If no visible emissions are detected during this period, no further inspections will be required during the life of the permit. In the event that visible emissions are noted, TASCO will be required to conduct monthly inspections of these sources, as per Permit Condition 1.8. This provision appears as Permit Condition 11.6 of the revised permit.

3.6 Miscellaneous Typographical Errors / Clarification

The section listed below addresses typographical error corrections and/or clarifications that have been made to the revised permit. These corrections do not relax permit limits or increase emissions rates in any manner.

3.6.1 Permit Condition 1.10 / Reporting Periods

Permit Condition 1.10 of the Tier I specifies actual dates for annual and semi-annual reporting periods. TASCOS notes that the language in General Provisions 13.21 and 13.24 appears to indicate a different set of reporting dates, which are based on the issuance date of the permit and conflict with the dates specified in Permit Condition 1.10. In an effort to rectify this issue, DEQ has inserted language in the two general provisions that refers back to the dates specified in Permit Condition 1.10.

It should be noted that, regardless of the date of the reporting period, TASCOS must submit reports that address the compliance status of permitted sources during the entire term of the Tier I permit (i.e., there cannot be any timeframe between permit issuance and expiration for which TASCOS does not report).

3.6.2 Permit Condition 5.7

Permit Condition 5.7 of the Existing Permit contains a typographical error that has been corrected in the revised permit. Specifically, the phrase "...for each dryer..." has been replaced with "...for the dryer...". There is only one dryer at the facility.

3.6.3 Section 7 / Summary Description

The summary description in Section 7 of the Existing Permit implies that exhaust gas from the kilns is only pulled through the exhaust vent scrubber during startup. The last sentence in the summary description has been revised to read as follows.

"Exhaust gas from the kilns is also pulled through the exhaust vent scrubber (P-K1/2D) at various times, including kiln startup, kiln charging, and as needed to assure proper operation of the kilns."

3.6.4 Table 7.1

Table 7.1 in Section 7 of the Existing Permit incorrectly describes operation of the exhaust vent scrubber. The table indicates that the scrubber is a control device "...while charging the kiln." The petition submitted by TASCOS indicates that the exhaust vent scrubber is also used during kiln startup and at other times to cause proper operation of the kilns. Consequently, the phrase in question has been removed from the table.

3.6.5 Section 11 / Summary Description

The summary description in Section 11 of the Existing Permit contains a typographical error that has been corrected in the revised permit. The summary description incorrectly states that the maximum hourly throughput of the main mill is 105 gallons of thin juice. The description has been corrected to read "...105,000 gallons of thin juice."

3.6.6 Table 11.2

Table 11.2 in Section 11 of the Existing Permit contains a typographical error that has been corrected in the revised permit. Specifically, the Affected Emissions Unit column incorrectly lists Unit No. P-O4; this has been corrected to indicate Unit No. P-D4 (i.e., pulp dryer material handling).

3.6.7 Section 5.1.1 / Technical Memorandum

Section 5.1.1 of the technical memorandum for the Existing Permit contains the following statement.

"The Foster Wheeler boiler has an allowable heat input rate of 280 MMBtu/hr, per existing Permit No. 13-1480-0001-01."

A review of Permit No. 13-1480-0001-01 indicates that this statement is in error. The reference to heat content in this permit was for descriptive and/or identification purposes only, and was not intended as an operational limit.

4. FEES

TASCO's Twin Falls facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees apply in accordance with IDAPA 58.01.01.387. There is no fee associated with this permitting action.

5. RECOMMENDATIONS

Based on the Tier I application and review of state rules and federal regulation, staff recommends that DEQ issue final Tier I operating Permit No. T1-030415 to The Amalgamated Sugar Company for their Twin Falls facility.

6. APPENDIX

EPA REVIEW



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: OAQ-107

January 27, 2004

William Rogers
Regional Permit Program Coordinator
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

Department of Environmental Quality
State Air Program

Re: Proposed Modification to Operating Permit for
Amalgamated Sugar Company, Twin Falls (083-00001)
J. R. Simplot, Caldwell (027-00009)

Dear Mr. Rogers :

Thank you for the opportunity to review the above mentioned proposed modification to the Title V operating permit.

In accordance with IDEQ's regulations and Section 505(b)(1) of the Clean Air Act, 42 U.S.C. §7661d(b)(1), and the implementing regulations at 40 C.F.R. §70.8(c), the Environmental Protection Agency (EPA) has 45 days from receipt of the proposed modification to the permit and all necessary supporting documentation to object in writing to its issuance. We are writing to notify you that EPA will not be reviewing the proposed modification to the permit action and will not object to its issuance. The modification to the permit is now eligible for issuance.

EPA's determination not to object to this modification to the permit in no way affects the public's right to petition the Administrator, pursuant to Section 505(b)(2) of the Clean Air Act, 42 U.S.C. §7661d(b)(2), and implementing regulations at 40 C.F.R. §70.8(d), to object to this permit modification. The time for filing such a petition shall remain open for 60 days after the end of the 45-day period, which commenced on December 23, 2003.

Further, the terms contained in the above referenced permit modification are specific to this facility and do not create conditions for the use, operation, or reliance of any other party. Please note that if the permit modification is later found to require corrective steps (including, but not limited to, reopening the permit for cause), the expiration of both EPA's review period and the public petition period without EPA objection does not compromise the Agency's authority to take such measures.

If you have any questions or concerns regarding this letter or would like to discuss these matters further, please contact me at (206) 553-6641.

Sincerely,

Jeff KenKnight

Jeff KenKnight, Manager
Federal & Delegated Air Programs Unit
Office of Air Quality



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C: Bill (2)
TFRO.
PRO.
Route to: - Marlene
- Pat R. J.F.

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